

Singular irreducible symplectic varieties have recently gained an increasing attention, especially because of the work of Hoering and Peternell that completed the proof of the Beauville-Bogomolov decomposition theorem in the singular projective setting. In this talk I will present several definitions of singular irreducible symplectic varieties one can find in the literature, their mutual relations and their properties, together with examples and some natural candidates due to Fujiki, Menet, Markushevich-Tikhomirov, Matteini and others.